Claims

[c1] 1. A method for performing thermal feasibility analysis for an enclosure containing electronics, the method comprising:
obtaining design parameters related to the enclosure;
performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a heat sink;
said enclosure material including plastic;
displaying results of the thermal feasibility analysis for said plurality of enclosure designs.

[c2] 2. The method of claim 1 wherein said thermal feasibility analysis includes an electronics temperature range for each enclosure design.

[c3] 3. The method of claim 2 wherein said displaying includes displaying the electronics temperature range for each enclosure design.

[c4] 4. The method of claim 3 wherein said electronics temperature range for each enclosure design is displayed graphically relative to a user-defined electronics temperature limit.

[c5] 5. The method of claim 4 wherein said electronics temperature range for each enclosure design is displayed in varying colors in response to a positional relationship between said electronics temperature range and said user-defined electronics temperature limit.

[c6] 6. The method of claim 2 wherein said displaying includes graphically depicting said enclosure material, mounting location of the electronics and presence of the heat sink.

[c7] 7. The method of claim 2 wherein said displaying includes textually describing said enclosure material, mounting location of the electronics and presence of the heat sink.

[c8] 8. The method of claim 1 wherein said thermal feasibility analysis includes an enclosure temperature range for each enclosure design.

[c9] 9. The method of claim 8 wherein said displaying includes displaying the enclosure temperature range for each enclosure design.

[c10] 10. The method of claim 9 wherein said enclosure temperature range for each enclosure design is displayed graphically relative to a material temperature limit.

[c11] 11. The method of claim 10 wherein said enclosure temperature range for each enclosure design is displayed in varying colors in response to a positional relationship between said enclosure temperature range and said material temperature limit.

[c12] 12. The method of claim 10 wherein said material temperature limit is a heat deflection temperature for a plastic.

[c13] 13. The method of claim 9 wherein said displaying includes graphically depicting said enclosure material, mounting location of the electronics and presence of the heat sink.

[c14] 14. The method of claim 9 wherein said displaying includes textually describing said enclosure material, mounting location of the electronics and presence of the heat sink.

[c15] 15. The method of claim 1 wherein said design parameters include enclosure volume, electronics volume, electronics power, ambient temperature and heat sink area.

[c16] 16. A method for performing thermal feasibility analysis for an enclosure containing electronics, the method comprising:
obtaining design parameters related to the enclosure;
performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a

heat sink;

said enclosure material including plastic and metal;

displaying results of the thermal feasibility analysis for said plurality of enclosure designs;

wherein said thermal feasibility analysis includes an electronics temperature range for each enclosure design, said displaying including displaying the electronics temperature range for each enclosure design graphically relative to a user-defined electronics temperature limit; and,

wherein said thermal feasibility analysis includes an enclosure temperature range for each enclosure design, said displaying including displaying the enclosure temperature range for each enclosure design graphically relative to a material temperature limit.

[c17] 17. A system for performing thermal feasibility analysis for an enclosure containing electronics, the system comprising:

a host system coupled to a network;

a database coupled to said host system, said database including thermal feasibility analysis data;

said host system receiving design parameters related to the enclosure over said network;

said host system performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters and said thermal feasibility data, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a heat sink, said enclosure material including plastic;

said host system providing results of the thermal feasibility analysis for said plurality of enclosure designs to user systems coupled to said network.

[c18] 18. A storage medium encoded with machine-readable computer program code for performing thermal feasibility analysis for an enclosure containing electronics in a system including a host system, a database coupled to the host system and a user system coupled to the host system by a network, the storage medium including instructions for causing the host system to

implement a method comprising:

obtaining design parameters related to the enclosure from the user system;

performing a thermal feasibility analysis for a plurality of enclosure designs in response to said design parameters, said enclosure designs varying in enclosure material, mounting location of the electronics and presence of a heat sink, said enclosure material including plastic;

providing results of the thermal feasibility analysis for said plurality of enclosure designs to the user system.